UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Vorteq Coil Finishers
FROM:	Natalia Vazquez, Environmental Engineer AECAB (MI/WI)
THRU:	Sarah Marshall, Section Supervisor AECAB (MI/WI)
TO:	File

BASIC INFORMATION

Facility Name: Vorteq Coil Finishers

Facility Location: 11440 Addison Avenue, Franklin Park, Illinois 60131

Date of Inspection: October 4, 2022

EPA Inspector(s):
1. Natalia Vazquez, Environmental Engineer
2. Laura Neudorf, Environmental Engineer

Other Attendees:
1. Lisa Riesch, Regional Quality Assurance & Environmental Manager, Vorteq Coil Finishers
2. Dey Santos, Production Coordinator, Vorteq Coil Finishers
3. Jair Garcia, Plant Manager, Vorteq Coil Finishers
4. Matt Schroeder, Environmental Division Manager, Fehr Graham

Contact Email Address: lisa.riesch@vorteqcoil.com

Purpose of Inspection: Compliance with Title V Permit and synthetic minor limit for Hazardous Air Pollutants

Facility Type: Metal coil surface coater

Regulations Central to Inspection: Title V permit

Arrival Time: 9:00 a.m. CST
Departure Time: 11:00 a.m. CST

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Provided Small Business Resource Information Sheet
☒ Provided CBI warning to facility

The following information was obtained verbally from Lisa Riesch, Dey Santos, Jair Garcia, and Matt Schroeder unless otherwise noted.

Process Description:
Vorteq Coil Finishers (Vorteq or Facility) is located in Franklin Park, Illinois and has one metal coil coating line. The metal coil is feed into the system and is cleaned prior to being coated. The coating is applied by rolling the paint over the metal coil. The paint is only applied to one side of the metal coil and then quenched, dried, and cured in one of two ovens. Some orders require the coated metal coil to pass through the process a second time to coat the other side of the metal coil. The coating application takes place within the "coating room"; this room is kept under negative pressure to capture 100 percent of the emissions. The emissions from the coating room and the two ovens are routed to the regenerative thermal oxidizer (RTO).

Staff Interview:
- The Facility started operations in either the 1950s or 1960s. Vorteq has not modified or increased operations since taking ownership in the 1990s.
- The RTO's combustion zone is kept between 1620 °F and 1650 °F. Its temperature is manually recorded every other hour. The system has an interlock that will shut off the coating process if the combustion zone's temperature goes below a set point. Vorteq employees did not recall the set point temperature. The RTO has two temperature monitoring devices, and each reading can be seen in the control panel.
- Facility personnel stated that the RTO cannot be bypassed.
- The Facility has a pressure drop gauge by the door of the coating room. The facility doesn't have a procedure for an employee to monitor the pressure drop periodically. The facility doesn't keep records of the pressure drop in the coating room. The differential pressure monitor is calibrated quarterly.

- The facility has not been above 80 percent of the hazardous air pollutant (HAP) permit limit. The permit requires the facility to be below 10 tons per years for a single HAP and below 25 tons per years for all HAPs.
- The last performance test on the RTO was in 2019.
- The Facility assumes that all volatiles will be emitted from either the coating application or within the oven. The Facility assumes 100 percent capture efficiency for the coating rooms and ovens and 99.4 percent destruction efficiency from the RTO based on the latest performance test.
- Some of the paints applied during the coating operations contain metal HAPs, but the Facility assumes that none are emitted as these are expected to remain on the metal's surface.
- The facility has opacity requirements in its Title V permit, Section 4.2.a. The opacity requirements include Method 22 visible emission observation every three months and recordkeeping. Vorteq representatives believed these observations are not being completed. Furthermore, Vorteq representatives were not able to say where these observations are supposed to take place.
- There are no polishing or sanding operations. None of the coatings are applied by spraying.
- Vorteq uses methyl ethyl ketone (MEK) in its cleaning operations (this chemical compound was removed from EPA's HAP list in 2005).
- Vorteq doesn't use methylene chloride.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
- EPA did not see any fugitive emissions with the FLIR camera around the coating room and the ovens.
- The pressure drop reading was 0 inches of water for the coating room.
- The control panel near the coating room had the temperatures in the combustion zone of the RTO: T_1 1618 °F, T_2 1633 °F, and T_{avg} 1624 °F.
- Strong solvent-like odors were noticed while walking along Oven 1 and next to the coating room.
- Visible vapors were noticed above the oven. The facility stated that these were water vapors from rinse tanks that are kept at 180 °F.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Initial Notification and/or Notification of compliance related to any federal rule that applies to the facility;
- Most recent RTO performance test;
- HAP 12-month rolling average for 2021 through September 2022, including any assumptions, equations and calculations;
- VOM emissions calculations 2020 and 2021;
- Temperature and pressure drop monitoring records related to RTO (2021 and 2022);
- Inspection records of coating lines;
- Visible emission (Method 22/9) observations (2021 and 2022);
- Design records for the RTO; and
- Calibration records related to temperature gauge of the RTO and the pressure drop gauge of the coating room

Compliance Assistance: Vorteq denied entry to EPA inspectors on October 3, 2022, as they did not have two supervisors present at the Facility in accordance with its company policy. EPA came back the following day, but informed Vorteq that the Clean Air Act Section 114 authorizes EPA's authorized representatives to have right of entry upon presenting credentials, regardless of company policy.

Concerns:
The Facility appears to not be completing Method 22 visible emission observations as the permit requires.

DIGITAL SIGNATURES

Report Author: NATALIA VAZQUEZ RIVERA Digitally signed by NATALIA VAZQUEZ RIVERA Date: 2022.10.13 09:00:07 -05'00'

Section Supervisor: SARAH MARSHALL Digitally signed by SARAH MARSHALL Date: 2022.10.13 11:16:57 -05'00'

APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Facility Name: Vorteq Coil Finishers
Facility Location: 11440 Addison Avenue, Franklin Park, Illinois 60131
Date of Inspection: October 4, 2022

APPENDIX A: DIGITAL VIDEO & IMAGE LOG

1. **Inspector Name:** Natalia Vazquez (FLIR videos) and Laura Neudorf (digital photographs)	2. **Archival Record Location:** OneDrive and ERC

Video Number	File Name	Date and Time (incl. Time zone and DST)	Description of Video
1	MOV_0539.mp4	10/4/2022 10:14 CST	Coating room
2	MOV_0540.mp4	10/4/2022 10:37 CST	RTO
Image Number	**File Name**	**Date and Time (incl. Time zone and DST)**	**Description of Image**
1	IMG_0209.JPG	2022:09:03 09:59:24 CST	Oven 1 entrance – smell noticed
2	IMG_0210.JPG	2022:09:03 10:01:55 CST	Oven 1 temperature panel
3	IMG_0211.JPG	2022:09:03 10:05:15 CST	End of Oven 1 – strong smell noticed
4	IMG_0212.JPG	2022:09:03 10:05:58 CST	Differential pressure monitor for the coating room – strong smell noticed
5	IMG_0213.JPG	2022:09:03 10:13:54 CST	Large natural draft opening into the coating room from Oven 2
6	IMG_0214.JPG	2022:09:03 10:15:27 CST	RTO control panel/PFD and temperatures
7	IMG_0215.JPG	2022:09:03 10:19:45 CST	Oven 2 temperature panel
8	IMG_0216.JPG	2022:09:03 10:25:10 CST	RTO ductwork
9	IMG_0217.JPG	2022:09:03 10:31:14 CST	RTO stack
10	IMG_0218.JPG	2022:09:03 10:34:47 CST	RTO stack